

INTERNATIONAL SEARCH REPORT

International Application No PCT/US87/01537

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ³

According to International Patent Classification (IPC) or to both National Classification and IPC

IPC(4): C07K 13/00,15/00; A61K 37/00; See Attachment

US CL: 530/350,395,397; 514/12; 536/27 See Attachment

II. FIELDS SEARCHED

Minimum Documentation Searched ⁴

Classification System

Classification Symbols

US 530/350,395,397; 514/12; 536/27
435/68, 70, 172.3; 935/13

Documentation Searched other than Minimum Documentation
to the Extent that such Documents are Included in the Fields Searched ⁵

COMPUTER SEARCH CAS, APS: BONE MORPHOGEN, BONE
INDUCTIVE PROTEIN, BMP, OSTEOINDUCTIVE FACTOR

III. DOCUMENTS CONSIDERED TO BE RELEVANT ^{1*}

Category ⁶	Citation of Document, ^{1*} with indication, where appropriate, of the relevant passages ^{1*}	Relevant to Claim No. ^{1*}
X,P Y,P	US, A, 4,619,989 (URIST) 28 Oct 1986.	1-8 9-20
X Y	US, A, 4,563,350 (NATHAN ET AL) 7 January 1986.	1-8 9-20
X Y	US, A, 4,455,256 (URIST) 19 June 1984.	1-8 9-20
X —	Proc. Natl. Acad. Sci USA, Vol. 81, issued January 1984, (Washington, D.C.),	1 —
Y	(URIST), "Purification of bovine morphogenetic protein by hydroxyapatite chromatography", pages 371-375.	2-20

* Special categories of cited documents: ^{1*}

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search :

08 October 1987

Date of Mailing of this International Search Report :

20 OCT 1987

International Searching Authority ¹

ISA/US

Signature of Authorized Officer ^{2*}

Alvin E. Tanenholtz
Alvin E. Tanenholtz

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category *	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No 1
Y	<u>Science</u> , Vol. 220 issued 13 May 1983 (Washington, D.C.) (URIST) "Bone cell Differentiation and Growth Factors" pages 680-686.	1-20
Y	<u>Proc. Natl. Acad. Sci, USA</u> , Vol. 80 issued November 1983 (Washington, D.C.) (SAMPATH ET AL), "Homology of bone-inductive proteins from human monkey, bovine and rat extracellular matrix," pages 6591-6595.	1-20
Y	<u>Proc. Natl. Acad. Sci, USA</u> , Vol. 78 issued November 1981, (Washington, D.C.) (SUGGS ET AL), "Use of synthetic oligonucleotides as hybridization probes: Isolation of cloned cDNA sequence for human β_2 -microglobulin" pages 6613-6617.	1-20